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Form PTO-1449 (Modified)	U.S. Department of Commerce Patent and Trademark Office	App. Docket No. 28341/6127NDIV1	Serial No. 10/705,660
INFORMATION DISCLOSURE STATEMENT		Applicant	
		Bowersock et al.	
		Filing Date November 10, 2003	Group 1644

U.S. PATENT DOCUMENTS							
*Examiner Initials	Document Number	Issue Date	Name	Class	Subclass	Filing Date if Appropriate	
JK	3,551,556	12/29/70	Kliment et al.	424	21		
	3,880,990	4/29/75	Bauer et al.	424	19		
	4,178,361	12/11/79	Cohen et al.	424	22		
	4,220,152	9/2/80	Dresback	128	260		
	4,352,883	10/5/82	Lim	435	178		
	4,391,909	7/5/83	Lim	435	178		
	4,673,566	6/16/87	Goosen et al.	424	19		
	4,689,293	8/25/87	Goosen et al.	435	1		
	4,780,315	10/25/88	Wu et al.	424	438		
	4,798,786	1/17/89	Tice et al.	435	177		
	4,803,168	2/7/89	Jarvis, Jr.	435	240.22		
	4,806,355	2/21/89	Goosen et al.	424	424		
	4,808,404	2/28/89	Bhogal	424	88		
	4,873,090	10/10/89	Clancy	424	451		
	5,075,109	12/24/91	Tice et al.	424	88		
	5,352,448	10/4/94	Bowersock et al.	424	438		
UK	5,674,495	10/7/97	Bowersock et al.	424	184.1		
	6,214,331	04/10/01	Vanderhoff et al.	424	78.17	12/12/97	

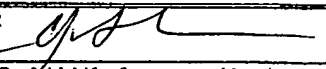
FOREIGN PATENT DOCUMENTS							
*Examiner Initials	Document Number	Publication Date	Country	Class	Subclass	Translation	
JK	WO 85/00752 A	2/28/85	PCT			Yes	No
	WO 95/02416	1/26/95	PCT				
	0 540 413 A1	5/5/93	EPO			Abstract only	
	0 188 309 A2	7/23/86	EPO				
	1-313437	12/18/89	JP			Abstract only	
UK	WO 98/46211	10/22/98	PCT				
	WO 01/00233	01/04/01	PCT				

EXAMINER <i>JK</i>	DATE CONSIDERED <i>10/27/05</i>
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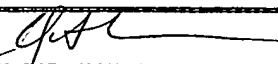
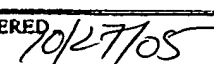
OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, etc.)	
✓	Bowersock et al., "Evaluation of an orally administered vaccine, using hydrogels containing bacterial exotoxins of <i>Pasteurella haemolytica</i> , in cattle", <i>American Journal of Veterinary Research</i> , Vol. 55, No. 4, pp. 502-509 (1994)
	Bowersock et al., "Oral Administration of Mice with Ovalbumin Encapsulated in Alginate Microspheres", <i>Abstracts of Papers of the American Chemical Society</i> , Vol. 208 (1994)
	Bowersock et al., "Oral Vaccination of Animals Via Hydrogels", <i>Proceed. Intern. Symp. Control. Rel. Bioact. Mater.</i> , Vol. 21 (1994)
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	Offit et al., "Enhancement of Rotavirus Immunogenicity by Microencapsulation", <i>Virology</i> , Vol. 203, pp. 134-43 (1994)
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	Jackson, R. "Alginate Microspheres for Oral Delivery of Vaccines" a Thesis Submitted to the Faculty of Purdue University (1995)
	Khoury et al., "Oral Inoculation of Mice with Low Doses of Microencapsulated, Noninfectious Rotavirus Induces Virus-Specific Antibodies in Gut-Associated Lymphoid Tissue", <i>The Journal of Infectious Diseases</i> , Vol. 172, pp. 870-74 (1995)
	Bowersock et al., "Administration of Ovalbumin Encapsulated in Alginate Microspheres to Mice", Chapter 6 in "Hydrogels and biodegradable polymers for bioapplications", <i>American Chemical Society</i> , pp. 58-66 (1996)
	Duncan et al., "Comparative analysis of oral delivery systems for live rotavirus vaccines", <i>Journal of Controlled Release</i> , Vol. 41, pp. 237-247 (1996)
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	Moser et al., "Effect of microencapsulation on immunogenicity of a bovine herpes virus glycoprotein and inactivated influenza virus in mice", <i>Vaccine</i> , Vol. 15, No. 16, pp. 1767-72 (1997)
	Periwal et al., "Orally Administered Microencapsulated Reovirus Can Bypass Suckled, Neutralizing Maternal Antibody That Inhibits Active Immunization of Neonates", <i>Journal of Virology</i> , Vol. 71, No. 4, pp. 2844-50 (April 1997)
	Bowersock et al., "Induction of pulmonary immunity in cattle by oral administration of ovalbumin in alginate microspheres", <i>Immunology Letters</i> , Vol. 60, pp. 37-43 (1998)
	Cho et al., "Novel mucosal immunization with polysaccharide-protein conjugates entrapped in alginate microspheres", <i>Journal of Controlled Release</i> , Vol. 53, pp. 215-224 (1998)
✓	Jarvinen, "Mucosal Vaccination of Rabbits Against Pasteurellosis Using <i>Pasteurella multocida</i> Toxin (PT) and a Potassium Thiocyanate Extract of <i>P. multocida</i> (CN) Encapsulated in Sodium

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UK		Alginate Microspheres" A Thesis Submitted to the Faculty of Purdue University, May, 1997, (released from confidentiality on 10/19/98)
		Moser et al., "Relative Importance of Rotavirus-Specific Effector and Memory B Cells in Protection against Challenge", <i>Journal of Virology</i> , Vol. 72, No. 2, pp. 1108-1114 (1998)
		Bowersock et al., "Oral vaccination of animals with antigens encapsulated in alginate microspheres", <i>Vaccine</i> , Vol. 17, pp. 1804-1811 (1999)
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		Jarvinen et al., "Intranasal Vaccination of New Zealand White Rabbits Against Pasteurellosis, Using Alginate-Encapsulated <i>Pasteurella multocida</i> Toxin and Potassium Thiocyanate Extract", <i>Comparative Medicine</i> , Vol. 50, No. 3, pp. 263-269 (June 2000)
		Kidane et al., "The efficacy of oral vaccination of mice with alginate encapsulated outer membrane proteins of <i>Pasteurella haemolytica</i> and One-Shot®", <i>Vaccine</i> , Vol. 19, pp. 2637-46 (2001)
		Mittal et al., "Immunization with DNA, adenovirus or both in biodegradable alginate microspheres: effect of route of inoculation on immune response", <i>Vaccine</i> , Vol. 19, pp. 253-263 (2001)
		Product Bulletin for "Structured Foods with the Algin/Calcium Reaction: Kelco corp. (date unknown)
		International Search Report (PCT) dated February 14, 2002, mailed March 22, 2002, for PCT/US01/15235
		Chan et al., "Effect of cellulose derivatives on alginate microspheres prepared by emulsification", <i>J. Microencapsulation</i> , Vol. 14, No. 5, pp. 545-555 (1997)
		Lemoine et al., "Preparation and characterization of alginate microspheres containing a model antigen", <i>International Journal of Pharmaceutics</i> 176, pp. 9-19 (1998)
UK		C.J. Gray and J. Dowsett, "Retention of Insulin in Alginate Gel Beads" <i>Biotechnology and Bioengineering</i> , Vol. 31, pp. 607-12 (1988)

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						Yes	No

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, etc.)	
JK	Jackson, R. et al., "Preparation of 2-5 μ m alginate microparticles by emulsification for oral vaccine delivery: Effects of surfactant type, crosslinker, and mixer speed on particle size," Pharmaceutical Research (New York), Vol. 14, No. 11 Suppl., November 1997, pp. S47-S48, XP008000504, Annual Meeting of the American Association of Pharmaceutical Scientists, Boston, Massachusetts, USA; November 2-6, 1997, ISSN: 0724-8741.
JK	European Search Report from the European Patent Office, in counterpart application no. 05005506.0, mail date April 22, 2005.
JK	European Search Report from the European Patent Office, in counterpart application no. 05005507.8, mail date April 22, 2005.

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